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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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09/929,672

08/13/2001

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03/30/2005

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EXAMINER

FERRIS, DERRICK W

ART UNIT

PAPER NUMBER

2663

DATE MAILED: 03/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/929,672

Applicant(s)

ISUKAPALLI ET AL.

Examiner

Derrick W. Ferris

Art Unit

2663

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 August 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 15-21 is/are allowed.
- 6) ☒ Claim(s) 1-4, 6-9 and 11-14 is/are rejected.
- 7) ☒ Claim(s) 5 and 10 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 August 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>8/16/2002</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. **Claims 1-4, 6-9, 11, 13 and 14** are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,633,563 B1 to *Lin et al.* ("*Lin*") in view of "Proposal of a Method of for Voice Stream Multiplexing for IP Telephony Systems" to *Hoshi et al.* ("*Hoshi*").

As to **claim 1**, *Lin* discloses a compare circuit as a CAM. In particular, see a compare circuit in reference to figures 2A and 2B which includes a plurality of locations with match entries for a conventional CAM.

Lin may be silent or deficient to the further limitation of including both simplex and multiplex entries. In particular, *Lin* teaches matching *any* type of IP or UDP packet such that both types of simplex and multiplex entries are stored in the conventional CAM. However, assuming the above concept is not clear, the examiner also notes the obviousness rejection(s) as follows. *Lin* may not clearly teach the limitations that include *both* simplex entries and multiplex entries, each simplex entry including data that can match simplex header packet information, each multiplex entry including data that can match multiplex packet information.

Hoshi teaches the further recited limitation above when used in combination at e.g., the top of page 183 left-hand column.

The proposed modification of the above-applied reference(s) necessary to arrive at the claimed subject matter would be to modify *Lin* by making it clear that any type of IP packet would include RTP multiplexed packets such that the relevant multiplexed packet information (e.g., information related either to a general RTP packet or a specific RTP multiplex packet) is stored in the CAM as taught by *Lin*. Specifically note that *Hoshi* teaches either RTP multiplexed packets with a modified UDP header as taught by conventional methods such as Rosenberg et al. (i.e., see top left-hand column on page 183 and figure 4 on page 184 of *Hoshi*) or the proposed method of *Hoshi* which does not modify the UDP header such that both of these types of packets are stored in the conventional CAM taught by *Lin*.

As such, examiner notes that it would have been obvious to one skilled in the art prior to applicant's invention to include the above limitation. In particular, the motivation for modifying the reference or to combine the reference teachings would be to look-up information concerning a UDP packet where a UDP packet is either a simplex or a multiplex packet. In particular, *Lin* cures the above-cited deficiency by providing a motivation found since *Lin* teaches looking up any type of packet. Second, there would be a reasonable expectation of success since the packets have header information. Thus the references either in singular or in combination teach the above claim limitation(s).

As to **claim 2**, see figures 2a and 2b of *Lin* where the search fields contain data to be matched. The information is further prestored in the CAM.

As to **claim 3**, see figures 2a and 2b of *Lin* where the search fields contain header information which includes network layer information, see e.g., column 10, lines 26-42.

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As to **claim 4**, see figures 2a and 2b of *Lin* where the search fields contain header information which includes UDP, see e.g., column 10, lines 26-42.

As to **claim 6**, see figures 2a and 2b of *Lin* which teach a CAM.

As to **claims 7 and 8**, see e.g., figure 2b where the mask values are taught as part of field 264. Although not shown in figure 2b, the reference also acknowledges that global masks (i.e., common masks) are also well known in the art, see e.g., column 10, lines 55-56.

As to **claim 9**, see similar rejection to claim 1.

As to **claim 11**, *Lin* teaches storing higher layer protocols in the CAM, see e.g., column 9, lines 53-57, where *Hoshi* teaches e.g., left-hand column on page 185 with respect to assigning UDP port numbers as part of a CID. Thus a voice channel value is taught using the references in combination.

As to **claim 13**, see similar rejection to claim 11.

As to **claim 14**, see similar rejection to claim 11.

3. **Claim 12** is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,633,563 B1 to *Lin et al.* ("*Lin*") in view of "Proposal of a Method of for Voice Stream Multiplexing for IP Telephony Systems" to *Hoshi et al.* ("*Hoshi*") in further view of U.S. Patent Application 2001/0030966 A1 to *Choi*.

As to **claim 12**, *Lin* and *Hoshi* may be silent to a trunk ID; however, the examiner notes the above limitation may be taught by *Lin*, since *Lin* teaches a VPI value for ATM AAL2 voice packets using a similar rejection as mentioned in claim 1. However, assuming the above reasoning is not clear, the examiner notes the following obviousness

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rejection as well. *Choi* teaches a trunk ID as part of the VPI in relation to figures 3 and 4. Thus the examiner proposes to modify *Lin* and *Hoshi* in support of a trunk ID for multiplexed ATM packets where *Lin* further supports ATM as part of the CAM. Hence if an ATM packet look-up is performed then the lookup would include the VPI value which is the trunk ID which is the proposed modification for the rejection. Hence examiner notes that it would have been obvious to one skilled in the art prior to applicant's invention to include the above limitation. In particular, one skilled in the art would have been motivated to use a trunk ID when using multiplexing ATM AAL2 packets as taught by *Choi* in combination.

Allowable Subject Matter

4. **Claims 15-21** are allowed.
5. **Claims 5 and 10** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Derrick W. Ferris whose telephone number is (571) 272-3123. The examiner can normally be reached on M-F 9 A.M. - 4:30 P.M. E.S.T.

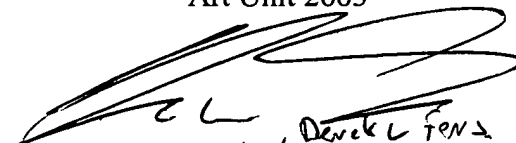
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Ngo can be reached on (571)272-3139. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


DWF

Derrick W. Ferris
Examiner
Art Unit 2663


Derrick W. Ferris
3/19/2005